## Manolis Tsiknakis, Ph.D.

Curriculum Vitae March 2021

## Manolis Tsiknakis, Ph.D.

Born: March 10, 1959 Citizenship: Greek Marital Status: Married, 2 children

#### Hellenic Mediterranean University Address

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#### FORTH Address

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#### Education

1985-1989 Ph.D. in Signal Processing and Intelligent Systems, University of Bradford, UK. Title of Thesis: An Intelligent Electromagnetic Flowmeter Based on Novel Excitation Waveforms and Advanced Signal Processing 1983-1984 Master of Science (M.Sc.) in Microprocessor Engineering, School of Electric and Electronic Engineering, Universitv Bradford. UK. of Title of Master Thesis: A Disk Drive Controller for the VME bus 1979-1983 Batchelor of Engineering (B.Eng.) in Electric and Electronic Engineering, University of Bradford, UK.

#### Research Interests

My current research interests include biomedical informatics and engineering; Semantic health data integration; ubiquitous sensor-based human behaviour modelling, activity and context recognition; affective computing and smart eHealth and mHealth service platforms.

Prof Tsiknakis continues to show a strong interest on issues related to managing technological change and socio-economic aspects of e-business in general and eHealth/mHealth technologies and services in specific.

#### Academic Positions

May 2019 – present	Professor of	Biomedical	Informatics	and	eHealth,	Departr	nent	of
	Electrical and	Computer E	Ingineering,	Schoo	l of Engir	neering,	Helle	nic
	Mediterranear	University						

- April 2016 May 2019 Professor of Biomedical Informatics and eHealth, Department of Informatics Engineering, School of Engineering, Technological Educational Institute of Crete.
- Feb 2012 Mar. 2016 Associate Professor of Biomedical Informatics and eHealth, Department of Informatics Engineering, School of Engineering, Technological Educational Institute of Crete.

#### Research Appointments

Feb 12 - present	Visiting Research Professor, Computational BioMedicine Laboratory, Institute of Computer Science (ICS), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece.
Aug. 02 - Jan 12	Principal Researcher - Institute of Computer Science, Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece.
Aug. 99 -J uly 02	Associate Researcher - Institute of Computer Science, Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece.
Feb.92 - July 99	Associated Scientist – Institute of Computer Science, Foundation for Research and Technology-Hellas (FORTH), Heraklion, Crete, Greece.
Feb.92 - Jul. 94	Affiliated Research Scientist, Institute of Computer Science, Foundation for Research and Technology-Hellas, Heraklion, Crete, Greece.
1987 - 1990	Research Fellow with academic responsibilities, School of Control Engineering, University of Bradford, Bradford, UK. Taught the subjects of <i>Digital Signal Processing, Measurement and Control, Computer Systems for Real Time Control</i> at the MSc course of Control Systems Engineering.
1985 - 1987	Research Assistant, School of Control Engineering, University of Bradford, Bradford, UK, funded by a grant from the British National Research Council.

#### Teaching Positions and Experience

May 2019 – present Professor of Biomedical Informatics and eHealth Services, Hellenic Mediterranean University, Crete, Greece. Teaching responsibilities remain the same as previously at TEI Crete.

- Feb 2012 May 2019 Professor of Biomedical Informatics and eHealth Services, Technological Educational Institute of Crete, Greece. Teaching the undergraduate courses in *Biomedical Informatics*, *eHealth and mHealth services*, Bioinformatics and Modelling of Physiological Systems, Management of ICT projects as well as Innovation, Entrepreneurship and the Internet. Prof Tsiknakis is also teaching the courses *Research Methods and Project Management* and *Advanced topics in Biomedical Informatics* at the postgraduate course on *Informatics Engineering* of TEI Crete.
- Feb 2003 July 2007 Visiting Associate Professor, Department of Computer Science, University of Crete. Taught the courses on *Medical Informatics, Multimedia Clinical Information Systems and eHealth* at the postgraduate course of Computer Science.
- Feb 1997- July 2000 Visiting Associate Professor, Technological Institute of Heraklion, STEF. Taught the courses on *Programming* and *Medical Information Systems*.
- Oct 1987- Jun 1990 School of Control Engineering, University of Bradford, Bradford, UK. Taught the subjects of *Digital Signal Processing, Measurement and Control and Computer Systems for Real Time Control* at the MSc course of Control Systems Engineering.

#### Scientific Positions

2020	Dr Tsiknakis is a member of the Organising Committee of the IEEE Biomedical and Health Informatics (BHI) and Body Sensor Networks (BSN) 2020 Conferences.
2018 – present	Dr Tsiknakis is a member of the Editorial Board of the European Journal for Biomedical Informatics ( <u>https://www.ejbi.org/editorial-board.html</u> )
2016 – present	Dr Tsiknakis is an Associate Editor of the <i>IEEE Journal of Biomedical and Health Informatics</i> (Impact Factor 2019 : 4.217)
2016 – present	Dr Tsiknakis is a member of the Editorial Board of the open access International Journal of Telemedicine and Applications (https://www.hindawi.com/journals/ijta/)
Nov. 2012	Chair of the evaluation panel for the project OpenPHACTS (An open, integrated and sustainable chemistry, biology and pharmacology knowledge resource for drug discovery), funded through the Innovative Medicne Initiative programme of the EU.
2010	Scientific Program co-chair, 10th IEEE International Conference on Information Technology and Applications in Biomedicine (ITAB 2010).
2010	Member of the Technical Program Committee for International ICST Conference on Wireless Mobile Communication and Healthcare (MobiHealth 2010).
2009	Program Committee member of the 9th International Conference on Information Technology and Applications in Biomedicine, (ITAB 2009), Cyprus, 5-7 November 2009, ( <u>http://www.cs.ucy.ac.cy/itab2009/committees.html</u> ).
2009	Program Committee member of track Special Session S11: Intelligent Systems Design and Applications in the Health Domain of the <i>International Conference on Intelligent Systems Design and Applications 2009 (ISDA 09),</i> Piza, Italy, 30 November – 2 December, ( <u>http://cig.iet.unipi.it/isda09/</u> ).
2009	Program Committee member of the International conference <i>IADIS e-Health</i> 2009 ( <i>EH 2009</i> ), Algarve, Portugal, 21-23 June 2009, ( <u>http://www.ehealth-conf.org/topics.asp</u> ).

2009	Member of the Scientific Committee of the International Educational Meeting Biomed Grid School 2009, Como, Italy 11-17 May 2009, (http://www.biomedgrid.it).
2008-	Member of the Editorial Board of the scientific journal (open access) <i>The Open</i> <i>Medical Informatics Journal</i> ( <u>http://www.bentham.org/open/tominfoj/EBM.htm</u> )
2008-2009	Member of the Editorial Advisory Board of the Book <i>Virtual Communities of Practice and Social Interactive Technologies: Lifecycle and Workflow Analysis</i> , D. Akoumianakis (Editor).
2008	Member of the International Review Board of the IADIS Multi Conference on Computer Science and Information Systems 2007 - " <i>e-LEARNING - eL2008</i> ".
2007	Expert acting as the country correspondent in the "Exchange of Good Practices in eHealth" (Good eHealth - <u>www.good-ehealth.org</u> ) carried out by Deloitte (Belgium) and Empirica (Germany) for the European Commission, DG INFSO and Media.
2007	Member of the Program Committee of the <i>European Conference on eHealth</i> ( <i>ECEH07</i> ), Oldenburg, Germany, October 11 - 12, 2007.
2007	Member of the International Review Board of the International Conference on Health Information Technology (ICHIT07), Berlin, 12-15 June 2007.
2007	Member of the International Review Board of the IADIS Multi Conference on Computer Science and Information Systems 2007 - "e-LEARNING - eL2007.
2006	Member of the Program Committee of the <i>European Conference on eHealth</i> ( <i>ECEH06</i> ), Fribourg, Switzerland on October 12-13 2006.
2006	Member of the Technical Program Committee of the <i>IEEE Information</i> <i>Technologies and Applications in Biomedicine 2006 International Conference</i> , Ioannina, Greece, 26-28 Oct. 2006.
2006	Member of the Advisory Board of the <i>eHealth 2006 High Level Conference</i> , Malaga, 10-12 May 2006.
2003 - 2006	Member of the Programme Committee, HealthGrid Conference, 2003, 2004, 2005, 2006
2005	Member of the Scientific Committee of the 18th IEEE Symposium on Computer-Based Medical Systems (IEEE CBMS 2005), June 23-24, 2005, Dublin, Ireland.
2002	Member of the Programme Committee of the Tenth International Symposium on <i>Health Information Management Research (iSHIMR2002).</i>

#### Advisory activities

- 2010 2013 Chair of the Scientific Advisory Committee of the project EHR4CR, funded by the Innovative Medicine Initiative (IMI) of the EU.
- 2011 2012 Member of the Expert's Advisory Committee to the Greek Ministry of eGovernment. Area of expertise eHealth.
- 2010 2012 Member of the Scientific Advisory Board of the EC FP7 POKEMON Large Collaborative project entitled *"Point of Care Monitoring and Diagnostics for Autoimmune Diseases"*.
- 2006 2010 Member of the Scientific Advisory Board of the EC FP6 *SmartHEALTH* Integrated Project entitled "*Smart Integrated Biodiagnostic Systems for Healthcare*".

#### Reviewer and Evaluator Assignments

Dr Tsiknakis has been and continues to be a regular reviewer for a number of scientific journals, such as

- IEEE Journal on Affective Computing
- IEEE Journal of Biomedical and Health Informatics (previous known as Transactions on Information Technology in Biomedicine)
- Sensors, Elsevier
- International Journal of Biomedical Informatics
- Internationan Journal of Medical Informatics
- IEEE Communications Magazine
- IEEE Transactions on Biomedical Engineering
- BMC Medical Informatics and Decision Making
- Computer Methods and Programs in Biomedicine
- Open Medical Informatics Journal
- The International Journal of Technological Innovation, Entrepreneurship and Technology Management

Dr Tsiknakis is also acting as a regular reviewer for a number of international conferences, such as:

- World Congress of Medical Informatics (Medinfo)
- Medical Informatics in Europe (MIE) conference
- IEEE Engineering in Medicine and Biology (IEEE EMBC) International Conference
- IEEE Conference on Biomedical and Health Informatics
- European Conference on eHealth (ECEH)
- IADIS International Conference on eHealth (IADIS eHealth)

Dr Tsiknakis has also acted repeatedly as an evaluator for research proposals for the General Secretariat for Research and Technology of Greece, the Irish Health Research Board (2005-2009).

#### Administrative Positions

2019 – present	Head of the Laboratory of Applied and interactive computing, Dep. of Electrical and Computer Engineering, Hellenic Mediterranean University, Crete, Greece.
May 2013 – Dec. 2017	Vice Rector for Research and Infrastructure Development, Technological Educational Institute of Crete.
Jan. – May 2013	Head of Department, Applied Informatics and Multimedia, Technological Educational Institute of Crete.
May 2012 – 2013	Member of the Managing Committee of the Postgraduate Course in Applied Informatics and Multimedia, Department of Applied Informatics and Multimedia, TEI Crete.
Feb. 2012 – 2018	Head of the Biomedical Informatics and eHealth Laboratory, Department of Applied Informatics and Multimedia, Technological Educational Institute of Crete.
2005 – 2010	Head of the Center for eHealth technologies (previously known as Center for Medical Informatics and Health Telematics Applications), Institute of Computer Science, Foundation for Research and Technology-Hellas.
1995 - 2004	Coordinator of the Center for Medical Informatics and Health Telematics Applications (a multidisciplinary group of approximately 35 researchers,

technical and support staff), Institute of Computer Science, FORTH. My responsibilities involved, among others, establishing, participating in and managing joint research projects between industry and academia, as well as the day-to-day management of all activities of the Center.

#### Organisation of Conferences and Scientific Workshops

2019 Dr Tsiknakis was the General Chair of the IEEE Bioinformatics and Bioengineering 2019 Conference, Athens 28-30 October 2019 (https://bibe2019.ics.forth.gr/) Dr Tsiknakis was the organiser of a Special Session on "Cancer Informatics" 2017 during the BHI-2017 International Conference on Biomedical and Health Informatics, Las Vegas, US. 2013 Organiser of a Special Session on "The Digital Patient concept: Vision and Early Demonstrations", 13th IEEE International Conference on BioInformatics and BioEngineering, November 2013, Chania, Crete, Greece. Co-organiser of a Special Session on ""Computational solutions to large-scale 2013 data management and analysis in translational and personalized medicine" at the 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'13), Osaka, Japan, July 2013. Dr Tsiknakis was the organiser of the Special Session on "Computational 2012 solutions to large-scale data management and analysis in translational, personalized and predictive medicine", 12th IEEE International Conference on BioInformatics and BioEngineering (BIBE 2012), Cyprus, Nov 2012. 2010 Dr Tsiknakis was the organiser of the Special Session on "Integrated ICT and post-genomic approaches in neurological disorders", organised as part of the IEEE International Conference on Information Technology and Applications in Biomedicine (ITAB 2010), Corfu, Greece. 2008 Dr Tsiknakis is the co-chair of the scientific session entitled "Knowledge Discovery and Decision Support Systems in Health Information Systems", organised as part of the International Conference on Health Informatics (HEALTHINF 2008), 28-31 January 2008, Madeira, Portugal. Dr Tsiknakis was the Programme Chair of the Scientific Workshop on "ICT 2006 technologies for Cancer research and management in the post-genomic era". organised as a pre-conference workshop during the IEEE Information Technology in Biomedicine (ITAB) 06 Conference, Ioannina, Greece, Oct 2006. 2006 Dr Tsiknakis was the organiser and chair of the Scientific workshop on "ICT challenges in advancing clinico-genomic research: multilevel data integration and knowledge discovery issues", organised by the ERCIM Working Group on Biomedical Informatics and the ACGT Integrated Project, Budapest, May 2006. 2003 Dr Tsiknakis was the Chair of the Organising Committee of the 1<sup>st</sup> Regional Conference "Innovation and Health in the 21st Century", Heraklion, Crete, Greece, 12-13 December 2003. 2000 Dr Tsiknakis was the Chair of the international Workshop entitled "Next Generation Regional Health and Social Care Networks: challenges and opportunities", Barcelona, 30 Nov - 1 Dec 2000.

### Other National and International Activities

November 2019	Evaluator of the second stage proposal submitted in response to the call for proposals of the Innovative Medicines Initiative 2 Joint Undertaking (IMI2) (H2020-JTI-IMI2-2017-17- stage two).
September 2019	Evaluator of the proposals submitted in response to the call for proposals of the Innovative Medicines Initiative 2 Joint Undertaking (IMI2) (H2020-JTI-IMI2-2017-18-stage one).
March 2018	Evaluator for proposals submitted in the context of the annual Chair of the Research Council KU Leuven
March 2018	Evaluator of the proposals submitted in response to the call for proposals of the Innovative Medicines Initiative 2 Joint Undertaking (IMI2) (H2020-JTI-IMI2-2017-13-two-stage).
Dec. 2017	Evaluator of the proposals submitted in response to the call for proposals of the Innovative Medicines Initiative 2 Joint Undertaking (IMI2) (H2020-JTI-IMI2-2016-10-two-stage).
Sept. 2017	Reviewer of research proposals submitted in the call for "User-centred health technology and digital health services review panel" of the Academy of Finland.
2015	Reviewer of the eTRIKS ( <u>https://www.etriks.org/</u> ) project submitted within the Knowledge management pillar of the Innovative Medicine Initiative (IMI) programme of the EU.
2014	Reviewer of the project proposals submitted within the Knowledge management pillar of the Innovative Medicine Initiative (IMI) programme of the EU.
2013	Evaluator of the project proposals submitted within the Knowledge management pillar of the Innovative Medicine Initiative (IMI) programme of the EU.
2012	Member of the Evaluation Committee for the 2nd National Competition on "Applied research and Innovation", organised by the Hellenic Federation of Enterprises.
2012-13	External evaluation expert for the Ministry of education and science of the Russian Federation within the framework of the initiative "On measures designed to attract the world's leading scientists to Russian institutions of higher learning".
2012	Evaluator of competitive R&D proposals submitted in the context of the IMI (Innovative Medicine Initiative) programme of the EU.
2012	External expert for evaluating competitive project proposals for the Luxembourg National Research Fund (FNR) within the framework of its multi- annual research programme CORE 2012.
2011	External international expert for evaluation of competitive project proposals for the French National Research Agency (ANR) in the context of its initiative "Investissements d'Avenir" or "Investments for the future" (subdomain Bioinformatics).
2011	Evaluator of the project proposals submitted within the Knowledge management pillar of the Innovative Medicine Initiative (IMI) programme of the EU.
2011 – 2012	Member of the "National Task Force and Coordination Committee ( $O\Delta I\Sigma EE$ )" in the domain of eHealth and Social Security of the Ministry of Electronic Governance.

- 2011 Evaluator of R&D proposals for the Luxembourg National Research Fund (FNR) within the framework of its multi-annual research programme CORE 2011.
- 2011 FORTH's representative and member of the "Innovation in Health" Committee of the Region of Crete.
- 2010 Evaluator of competitive R&D proposals submitted in the context of the IMI (Innovative Medicine Initiative) programme of the EU.
- 2010 2012 Member of the Peer-Review Team for the FP7 funded project FP7-ICT-216088 POCEMON "Point-Of\_Care MONitoring and Diagnostics for Autoimmune Diseases".
- 2004 2008 Chair of the Biomedical Informatics Working Group of the European Research Consortium on Informatics and Mathematics (ERCIM, www.ercim.org).
- 2003- Present Member of the Executive Committee of the HL7 Hellas, whose aim is to act as a catalyst for the promotion and use of the HL7 standard in the Medical Informatics domain in Greece.
- 2003- Present Member of the Board of the European Health Telematics Association (EHTEL), a non-for-profit European organization with the purpose of promoting eHealth service uptake in Europe.
- 2003- Present Member of the Association of Medical and Biological Engineering and Science (EAMBES), an academic non-for-profit association for promoting biomedical research and science in Europe.
- 2003- Present Member of the European Institute for Health Records (EUROREC), a non-forprofit European organization with the purpose of promoting the widespread use of Electronic Health Records in Europe.
- 2002 2003 Chair of the Health Information Technology Working Group of the European Research Consortium on Informatics and Mathematics (ERCIM, www.ercim.org).
- 2002 External Expert to the National Information Society Coordination Committee with the purpose of evaluating the ICT Strategy of the Greek Ministry of Health And Social Care.
- 2000- 2005 National Representative for the EUMEDIS (Euro-Mediterranean Information Society) Programme of the European Community.
- 2001-2002 Member of the Task Force for the development of an Information Society Strategy for the Region of Crete.
- 1997-1998 Evaluator of competitive R&D proposals for the General Secretariat for research and Technology, Ministry of Development, Greece.
- 1986-1989 Consultant to several industrial companies in the instrumentation sector in the UK.

#### Professional Societies

- Member of the IEEE (Institute of Electrical and Electronics Engineers) since 1993
- Member of the IEEE EMBS (Engineering in Medicine and Biology Society) since 1995.
- Member of the Institute of Measurement and Instrumentation since 1986.

#### Awards and Honors

1. The paper "A kouroubali, D. Katehakis, A Berler, M. Tsiknakis, Electronic Health Record Systems: Luxury or Need, 14<sup>th</sup> National Conference on Management of Health Services, Athens, 12-13 October 2012", received the best paper award.

- Project EMISPHER (Contract No. EUMEDIS 110) received the *best project award*, during the ATVN-EU-GP Conference, 1-3 December 2005 in Poland. The EMISPHER Project was awarded the first prize in the "e-Health" category of contest of "Good Practice Projects"; (<u>http://www.atvn-eu-gp.pl/contest/index.htm</u>)
- 3. The paper "A. Kouroubali, D. Vourvahakis, M. Tsiknakis: Innovative Practices in the Emergency Medical Services in Crete," received the best paper award at the iSHMIR 05 Conference, Thessaloniki, Greece, Sept 2005. (<u>www.seerc.info/ishimr2005/index.html</u>).
- 4. The research study carried out by Dr Tsiknakis and members of the eHealth laboratory of FORTH-ICS in collaboration with CNR, Italy entitled : "*Predicting the End of an Atrial Fibrillation Episode*" *received three awards* in the international competition (<u>http://www.physionet.org/challenge/2004/</u>) that took place on 19-22 September 2004 within the scope of the International Annual Congress on Computers in Cardiology, Chicago, USA.
- 5. Dr Tsiknakis received the **2003 FORTH's award** for best applied research. This is an annual award given by FORTH to innovative research and technological achievements by its researchers in the domains of basic and applied research.
- 6. The Regional Health Information Network of Crete "*HYGEIAnet*" was selected a finalist (among more than 180 contenders) at the ministerial conference and exhibition eHealth 2003, that took place in Brussels on May 2003 and received the **second prize** in the Regional Health Information networks category.
- 7. The Poster "*ECG in Your Hands: A Multi-Vendor ECG Viewer for Personal Digital Assistants*" by F. Chiarugi, M. Spanakis, PJ. Lees, C. Chronaki, M. Tsiknakis and SC Orphanoudakis received the **best poster award** at the Computers in Cardiology 2003 Conference that took place in Chalkidiki, Greece, 21-24 September 2003.

#### Research Grants (Hellenic Mediterranean University)

- "CardioCare An interdisciplinary approach for the management of the elderly multimorbid patient with breast cancer therapy induced cardiac toxicity". Collaborative R&D project funded under the H2020 programme of the European Commission, SC1-BHC-24-2020: Healthcare interventions for the management of the elderly multimorbid patient, (01/07/2021-31/06/2025), HMU Budget: 307.250 Euro. Prof Tsiknakis is HMU's principal investigator.
- "Smart Insole Ένας καινοτόμος φορετός αισθητήρας για συνεχή ανάλυση και αξιολόγηση της ανθρώπινης βάδισης (A novel wearable sensor for continues human gait analysis and evaluation)". R&D project funded under the call "Ερευνώ Δημιουργώ Καινοτομώ" of the General Secretariat for Research and Technology Hellas (07/09/2018-6/092021). HMU's Budget: 213.654 Euro. Prof Tsiknakis is the project's scientific coordinator and HMU's principal investigator.
- "HarmonicSS HARMONIzation and integrative analysis of regional, national and international Cohorts on primary Sjögren's Syndrome (pSS) towards improved stratification, treatment and health policy making". R&D project funded under the H2020 – Health, demographic change and well-being programme of the European Commission, TEI Crete's (currently HMU) Budget: 215.000 Euro. Prof Tsiknakis is HMU's principal investigator.
- "CHIC Computational Horizons in Cancer (CHIC): Developing Meta- and Hyper-Multiscale Models and Repositories for In Silico Oncology". Large Collaborative Research Project funded by the FP7-ICT programme of the European Commission (2013-2017). HMU's Budget: 128.000 Euro. Prof Tsiknakis is HMU's principal investigator.
- "MyHealthAvatar Demonstration of a 4D Digital Avatar Representation for Access to Long-Term Health Status Information". Small Collaborative Research Project (STREP) funded by the FP7-ICT programme of the European Commission (2013-2016). HMU's Budget: 106.000 Euro. Prof Tsiknakis is HMU's principal investigator.

- "CONTRACT Consent in a Trial and Care environment". Coordination and support action funded by the FP7-Health programme of the European Commission (2010-2012). HMU 's Budget: 98.000 Euro. Prof Tsiknakis is HMU's principal investigator.
- "Eurocancercomms Establishing an efficient network for cancer communication in Europe". Coordination and support action, funded by the FP7-SiS programme of the European Commission (2011-2012). HMU's Budget: 154.000 Euro. Prof Tsiknakis is HMU's co-principal investigator together with Prof Akoumianakis.

#### Research Grants (FORTH)

- "ODIN Leveraging AI based technology to transform the future of health care delivery in Leading Hospitals in Europe". Collaborative Research project funded by the H2020 programme of the European Commission, DT-ICT-12-2020 - AI for the smart hospital of the future, (01/03/2021-28/2/2025). Dr Tsiknakis is FORTH's co-principal investigator.
- "LETHE (λήθη) A personalized prediction and intervention model for early detection and reduction of risk factors causing dementia, based on AI and distributed Machine Learning". Collaborative Research project funded by the H2020 programme of the European Commission, SC1-DTH-02-2020: Personalised early risk prediction, prevention and intervention based on Artificial Intelligence and Big Data technologies, (01/01/2021-31/12/2024). Dr Tsiknakis is FORTH's co-principal investigator.
- "ProCAncer-I An AI Platform integrating imaging data and models, supporting precision care through prostate cancer's continuum". Collaborative Research project funded by the H2020 programme of the European Commission, H2020- DT-TDS-05-2020 – AI for Health Imaging (01/10/2020-30/9/2024). Dr Tsiknakis is the project's <u>Coordinator</u>.
- "HealthSonar: A system for monitoring sleep and healthy living with low energy radio technology". R&D project funded under the call "Research-Create-Innovate" of the General Secretariat for Research and Technology Hellas (07/07/2020-6/12/2022). Prof Tsiknakis is the project's <u>Scientific Coordinator</u> and FORTH's principal investigator.
- "Loock-Me An intelligent, deep learning enhanced multimedia platform for automated indexing, storage, searching and retrieval of locations to filming (shoot)". R&D project funded under the call "Research-Create-Innovate" of the General Secretariat for Research and Technology Hellas (07/07/2020-6/12/2022). Prof Tsiknakis is the project's scientific coordinator and FORTH's principal investigator.
- "SeeFar Smart glasses for multifacEted visual loss mitigation and chronic disEase prevention indicator for healthier, saFer, and more productive workplAce foR ageing population". Collaborative Research project funded by the H2020 programme of the European Commission, H2020-SC1-DTH-2018-1 - SC1-DTH-03-2018 (01/01/2019-31/12/2021). Dr Tsiknakis is FORTH's co-principal investigator (together with Prof. D.I. Fotiadis).
- "iManageCancer Empowering patients and strengthening self-management in cancer diseases". Collaborative Research project funded by the H2020 programme of the European Commission, PHC-26-2014-643529, (01/02/2015-31/7/2018). Dr Tsiknakis is FORTH's coprincipal investigator (together with Prof. K. Marias).
- "Semeoticons SEMEiotic Oriented Technology for Individual's CardiOmetabolic risk selfassessmeNt and Self-monitoring". Small collaborative Research Project funded by the FP7-ICT programme of the European Commission, FP7-ICT-2013-10-611516, (2012-2016). Dr Tsiknakis is a principal investigator.
- "PredictES An Integrated wearable platform predicting Epileptic Seizures and novel neurofeedback ap-proaches in support of personalized patient management". National Strategic Reference Framework (NSRF) 2007-2013, Cooperation 2011 - 11SYN-10-998, (9/2013 – 10/2015). Dr Tsiknakis is the project's <u>Scientific Coordinator</u>.

- "EURECA", Large Collaborative Research Project funded by the FP7-ICT programme of the European Commission (2/2012-7/2015). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- → "p-medicine", Large Collaborative Research Project funded by the FP7-ICT programme of the European Commission (2/2011-7/2015). Dr Tsiknakis is a member of the Project's Management Board, a member of the Technical Coordination Committee and FORTH's principal investigator.
- "ENNCA", Network of Excellence funded by the FP7-Health programme of the European Commission (2011-2015). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "INTEGRATE", Small Collaborative Research Project funded by the FP7-ICT programme of the European Commission (2011-2014). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "Gen2Phen", Large Collaborative Research Project funded by the FP7-Health programme of the European Commission (2008-2012). Dr Tsiknakis is a principal investigator.
- "I4Crete" Regional Innovation Pole of Crete (2006-2008) Dr Tsiknakis is the <u>Scientific</u> <u>Coordinator</u> of the action related to the specification of a "Regional Technology Platform on eHealth" and the action related to the design of the conceptual model for the post-genomic electronic health record.
- → "ACGT", Integrated Project, funded by the Information Society Technologies Programme of the European Commission (2006-2010). Dr Tsiknakis is the <u>Scientific Coordinator</u> of the Project.
- *"LOCCANDIA*", Specific Targeted Research Project (STREP), funded by the IST programme of the European Commission. Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "HARTFAID", Specific Targeted Research Project (STREP), Funded by the Information Society Technologies Programme of the European Commission (2004-2006). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "SYMBIOMATICS", Specific Support Action (SSA) in the domain of Biomedical Informatics, Funded by the Information Society Technologies Programme of the European Commission (2004-2006). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "HEALTHWARE", Integrated Project, Funded by the Space and Satellite Programme of the European Commission (2004-2006). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "RURAL WINGS", Integrated Project, Funded by the Space and Satellite Programme of the European Commission (2004-2006). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "eu-DOMAIN", Specific Targeted Research Project (STREP), Funded by the Information Society Technologies Programme of the European Commission (2004-2006). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- → "TWISTER", Integrated Project, Funded by the Space and Satellite Programme of the European Commission (2004-2006). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "INFOBIOMED", Network of Excellence, Funded by the Information Society Technologies Programme of the European Commission (2004-2006). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "TWISTER", Integrated Project, Funded by the Satellite and Space Technologies Programme of the European Commission (2004-2006). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.

- "ADOL", Funded by the General Secretariat for Research and Technology, Ministry of Development (Programme EΠAN), (2002 – 2004). Dr Tsiknakis is FORTH's principal investigator.
- "EMISPHER", Funded by the Ten-Telecom Programme of the European Commission (2001-2004). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "CORAS", Funded by the Information Society Technologies (IST) Programme of the European Commission (2001-2003). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- *PICNIC*, Funded by the Information Society Technologies (IST) Programme of the European Commission (2000-2003). Dr Tsiknakis is a member of the Project's Management Board and the Technical Management Committee and FORTH's principal investigator.
- "JUST", Project Leader and Scientific Coordinator, Funded by the Information Society Technologies (IST) Programme of the European Commission (2000-2002). Dr Tsiknakis is the Project <u>Scientific Coordinator</u>.
- "BreastCancer", Funded by the General Secretariat for Research and Technology, Ministry of Development (Programme ΠΕΝΕΔ), (1999 – 2001). Dr Tsiknakis is FORTH's principal investigator.
- "Crete Telematics Applications in Healthcare, Culture, and Public Administration", Project Manager and Scientific Leader of the Health Telematics Applications, Funded by the Ministry of the National Economy of Greece in the framework of the INTERREG II Programme (1998-2000). Dr Tsiknakis is the Technical Coordinator of the Project.
- "TEMeTeN", Towards a European Medical and Teleworking Network", Project Leader and Scientific Leader of the Health Telematics Applications, Funded by the Regional Information Society Initiative of the European Commission (1997-1999). Dr Tsiknakis is the Project Administrative and Technical Coordinator.
- ➡ "INTERCARE", Funded by the Telematics Applications Programme of the European Commission (1998-2000). Dr Tsiknakis is a member of the Project's Management Board and the Technical Management Committee and FORTH's principal investigator.
- "ATTRACT", Funded by the Telematics Applications Programme of the European Commission (1998-2000). Dr Tsiknakis is a member of the Project's Management Board and the Technical Management Committee and FORTH's principal investigator.
- "RETRANSPLANT", Funded by the Telematics Applications Programme of the European Commission (1998-2000). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.
- "TEN-TELEMED", Funded by the TEN-TELECOM Programme of the European Commission (1998-1999). Dr Tsiknakis is a member of the Project's Management Board and FORTH's principal investigator.

#### Research Grants (Bradford University)

- "Advanced Signal Processing Methods in Process Plant Monitoring", School of Control Systems Engineering, University of Bradford, Bradford, U.K. Funded by the British National Research Council, Co-ordinator and principal investigator (1988 - 1989).
- "Digital signal processing in flow-measurement", School of Control Systems Engineering, University of Bradford, Bradford, U.K. Funded by the British National Research Council, investigator (1985-1988).

#### Industry and Other Grants (Helelnic Mediterannean University)

→ "WeMP - Wellness Management Platform", Industry contract for the design of a prototypical ambient assisted living platform, FORTHnet SA, 56.000 Euro (2015 – 2016). "MDSS - Multimedia Decision Support System", Industry contract for the implementation of a clinical decision support system for stent positioning, SPIRIT SA, Budget: 40.000 Euro (2011-2012).

#### Industry and Other Grants (ICS-FORTH)

- Integrated Regional Health Information Network of the 3<sup>rd</sup> Health System of Attica. Contract awarded by the Information Society S.A. following a public tender. FORTH's Budget: *608.000* Euro (2005-2008).
- Integrated Regional Health Information Network of the Health System of Western Greece. Contract awarded by the Information Society S.A. following a public tender. FORTH's Budget: *210.000* Euro (2005-2008).
- Integrated Regional Health Information Network of the Health System of North Aegean. Contract awarded by the Information Society S.A. following a public tender. FORTH's Budget: *180.000* Euro (2005-2008).
- *Technical Consultancy and Systems Support Contracts* with the Hospitals of the Regional Health and Social System of Crete (2005 -2006). Budget: ~80.000 Euro
- Technical Consultancy and Systems Support Contracts with the Hospitals of the Regional Health and Social System of Crete (2004 -2005). Budget: ~100.000 Euro
- Technical Consultancy and Systems Support Contracts with the Hospitals of the Regional Health and Social System of Crete (2003 -2004). Budget: ~100.000 Euro
- Regional Health and Social Care System of South Aegean. *Development of an eHealth Network in the islands of Santorini, Thirasia, Folegandros, Sikinos and Anafi* (Aug. 2003 Feb. 2004). Budget: 40.000 Euro
- South and East Belfast Health and Social Care Trust, *Installation of technology to support an Integrated Electronic Health Record in the Trust* (March 2002 Aug. 2003). Budget: 17.000 Euro
- HealthSystemsExpertease S.A. (HSX), Netherlands. *Development of an Integrated Hospital Information System* (May 2001- Dec. 2003). Budget: 415.000 Euro
- Shared Medical Systems (SMS) Europe S.A.. Localisation and customisation of SMS-Europe's medical information systems for the Greek healthcare market (1999 –2000). Budget: 55.000 Euro
- Shared Medical Systems (SMS) Europe S.A. Assessment of the applicability of SMS products in the Greek Healthcare Market (1998). Budget: 15.000 Euro
- Oncology University Clinic, University Hospital of Heraklion, Crete. *Analysis and Design of a Web-based environment to support multi-site clinical trials in oncology* (1996-1997). Budget: 25.000 Euro
- University Hospital of Heraklion. *Requirements analysis and design of an advanced networking infrastructure* (1996). Budget: 32.000 Euro

#### Supervision of PhD Dissertations

- 1. Stefanos Gikas, A Pain Assessment Framework based on multimodal data and deep machine learning methods (in progress).
- 2. Roula Chatzaki, A multimodal approach for the assessment of mental stress based on the analysis of physiological signals (in progress).
- 3. Maria Evangelia Chatzimina, Conversational agents as a new diagnostic tool: a proof of concept study in the field of palliative care and depressive disorders (in progress).
- 4. An. Pampouchidou, Estimation of stress and depression based on visual information processing, University of Bourgogne (co-supervisor <u>http://www.theses.fr/s198833</u>).

- 5. M. Pediaditis, Vision-based human motion analysis in neurological disorders, Technical University of Gratz, 2014 (co-supervisor).
- 6. J. Arif, A Low Power Excitation Drive for Intelligent Electromagnetic Flowmeters, University of Bradford, Bradford, West Yorkshire, U.K., 1991.

Prof Tsiknakis has also experience of participation in PhD examining bodies. Specifically he has recently been a member of the following PhD examining juries.

- 1. Member of the PhD jury of Pantelis Natsiavas, Novel methods to support Active Pharmacovigilance in the clinical environment, Active Pharmacovigilance in the context of a Learning Healthcare System, Sorbonne Université, Dec. 2020.
- 2. Member of the PhD jury of S. Sfakianakis, *Exploration of disease-specific biomarkers in Cancer Research by integrating biological knowledge and high throughput data*, Technical University of Crete, 2016.
- 3. Member of the Ph.D. jury of M. Pediaditis, *Vision-based human motion analysis in neurological disorders,* Department of Biomedical Engineering, Technical University of Gratz, Dec. 2014.
- 4. Member of the Ph.D. jury of Xia Zhao. The title of her PhD dissertation is "A linear logic approach to RESTful Web service modelling and composition", Department of Computer Science and Technology, University of Bedfordshire, Luton, UK, May 2013.
- 5. Member of the Ph.D. jury of Anna Hristoskova. The title of her PhD dissertation is "*Design of semantic reasoning systems for management of next generation software services*", Department of Information Technology (INTEC), Ghent University, Nov 2012.
- 6. Member of the Ph.D. jury of Samuli Niiranen. The title of his PhD thesis is "A Hybrid Model for the Application of Convergent ICT in Process-Specific Health Solutions", Digital Media Institute, Tampere University of Technology, 2010.

#### Supervision of M.Sc. Dissertations

- 1. Stella Tsichlaki, Development of a Deep Learning Model for Dynamic Forecasting of Blood Glucose Level for Type 2 Diabetes Mellitus, Department of Electrical and Computer Engineering, Hellenic Mediterranean University (in progress).
- 2. Vangelis Chaniotakis, A Scalable Data Science Platform for Healthcare and Precision Medicine Research, Department of Computer Science, University of Crete, Co-supervisor (in progress).
- 3. A. Makridaki, Continuous and Categorical Assessment of Depression Based on Low Level Features, Department of Informatics Engineering, HMU, May 2018
- 4. K. Vazakopoulou, Continuous and Categorical Assessment of Depression Based on High Level Visual Features, Department of Informatics Engineering, HMU, March 2018
- 5. E. Strataki, Wellness Management and Positive Psychology App for smartphone platforms, Department of Informatics Engineering, HMU, 2016.
- 6. A. Tzedakis, Exploring Eye Activity as an Indication of human emotions, October 2016.
- 7. X. Atsalaki, Pathway Analysis for ChIP-seq Data, Department of Informatics Engineering, HMU, October 2016.
- 8. E. Christinaki, Signal Processing Methods for the Estimation of Physiological Parameters from Optical Recordings, Department of Informatics Engineering, HMU, July 2026.
- 9. R. Chatzaki, EEG-based Brain Computer Interaction for persons with motor impairments, Department of Informatics Engineering, HMU, June 2016.
- 10. M. Ligerakis, «Design and implementation of an active electrodes based EEG device, suitable for use in Steady State Visual Evoked Potentials (SSVEP) studies and applications» (joint supervisor with V. Sakkalis), Department of Informatics Engineering, HMU, July 2015.
- 11. Th. Malliotakis, Human Activity recognition based on smartphones, Department of Informatics Engineering, HMU, June 2015.

- 12. P. Kanaki, A framework for the implementation of computer interpretable clinical guidelines, Department of Informatics Engineering, HMU, June 2015.
- 13. D. Kounalakis, Cloud architectures and technologies for biomedical applications: Experimental evaluation of hybrid models, Department of Informatics Engineering, HMU, Oct. 2014.
- 14. P. Sfakianaki, Semantic service discovery using natural language processing techniques, Department of Informatics Engineering, HMU, June 2014.
- 15. V. Papoutsidis, A biomedical GRID infrastructure enabling high-performing data mining and knowledge extraction operations, University of Crete at Heraklion, Greece, February 2006
- 16. S. Kaoukakis, *Design, development and comparison of alternatives architectural approaches of communication based on HL7 Standard*, Department of Computer Science, University of Crete at Heraklion, Greece, June 2004.
- 17. A. Kontos, *Mobile and wearable technologies in Healthcare: A case study*, Department of Computer Science, University of Crete at Heraklion, Greece, December 2003.
- 18. Th. Tzelepis, *Designing Electronic Health Record Systems based on the Archetype methodology*, Department of Computer Science, University of Crete at Heraklion, Greece, October 2003.
- 19. Ch. Dimou, *Design and development of an internet based medical collaboration platform based on XML*, Department of Computer Science, University of Crete at Heraklion, Greece, September 2003.
- 20. E. Makrogamvrakis, *Design and implementation of an ECG viewer for a mobile and handheld computing platform*, The University of Kent at Canterbury, Kent, U.K., Sept 2001 (external supervisor).
- 21. N. Daliadakis, Integration and testing of an electronic Spirometer in a HomeCare Telemonitoring platform, The University of Kent at Canterbury, Kent, U.K., Sept 2001 (external supervisor).
- 22. D. Anthoulakis, *Design and Development of a Human Computer Interaction Environment to the Integrated Electronic Health Record*, University of Aberdeen, Scotland, Sept 2001 (external supervisor).
- 23. C. Chatzaki, *Design and development of the trust infrastructure employing smart cryptographic cards and PKI in health telematics networks*, Department of Computer Science, University of Crete at Heraklion, Greece, September 2001. (jointly with Prof. S.C. Orphanoudakis).
- 24. J. Lamb, A Robot based temperature-monitoring system, University of Bradford, Bradford, West Yorkshire, U.K., Sept. 1989.

#### Supervision of Senior Theses

Prof. Tsiknakis has successfully supervised a large number of senior theses since becoming a member of the academic staff at the Hellenic Mediterranean University (previously Technological Educational Institute of Crete).

He has also, in the past, supervised several senior theses at the University of Crete and the University of Bradford.

#### **Publications**

#### Dissertations

- 1. *M. Tsiknakis, A Disk Drive Controller for the VME bus, Master Thesis, School of Electric and Electronic Engineering, University of Bradford, Bradford, West Yorkshire, U.K., 1984.*
- 2. *M. Tsiknakis, An Intelligent Electromagnetic Flowmeter Based on Novel Excitation Waveforms and Advanced Signal Processing,* Ph.D. Thesis, School of Control Systems Engineering, University of Bradford, Bradford, West Yorkshire, U.K., Dec. 1988.

#### Key Note Speeches

1. M. Tsiknakis, *The European Cancer Informatics Landscape: Challenges for the biomedical informatics community.* The 8th IEEE International Conference on Bioinformatics and Bioengineering (BIBE 2008), Athens, Greece, 8-10 October 2008.

#### Editorial Board of International Scientific Journals

- 2017 Prof. Tsiknakis is an Associate Editor (<u>https://jbhi.embs.org/editorial-board/associate-editors/</u>) of the IEEE Journal in Biomedical and Health Informatics (*Impact Factor: 4.217*),
- 2018 Prof. Tsiknakis is a member of the editorial board of the European Journal of Biomedical Informatics (<u>https://www.ejbi.org/editorial-board.html</u>), an official journal of the European Federation of Medical Informatics (EFMI)

#### Editor of Special Issues in International Journals

- 1. Guest Editor, Special Issue on "State-of-the-Art Sensors Technology in Greece 2020–2021", MPDI Sensors (<u>https://www.mdpi.com/journal/sensors/special\_issues/In\_Greece</u>), Jan. 2021
- Lead Guest Editor, Special Issue on "Biomedical Informatics across the Cancer Continuum", M. Tsiknakis, N. Graf, K. Stamatopoulos, A. Bucur, IEEE Journal of Biomedical and Health Informatics, (<u>https://jbhi.embs.org/special-issues/</u>), May 31, 2018.
- Guest Editor, Special issue on "The Vision of Personally Managed Health Data: Barriers, Approaches and Roadmap for the Future", H. Kondylakis, K. Koumakis, M. Tsiknakis, S. Kiefer, Journal of Biomedical Informatics, (<u>https://www.journals.elsevier.com/journal-of-biomedicalinformatics/call-for-papers/the-vision-of-personally-managed-health-data-barriers-approa</u>), September 30, 2018
- 4. Guest Editor, Special Issue on "Advanced and Intelligent Technology for Dementia Care: Theory, Methods, and Applications", Po Yang, M. Tsiknakis, Li Da Xu, Wei Chen, IEEE Reviews in Biomedical Engineering, June 30, 2018
- 5. Guest Editor of the Special Issue on "Computational solutions to large-scale data management and analysis in translational and personalized medicine" of the IEEE Journal of Biomedical and Health Informatics (J-BHI) formerly known as IEEE Transactions on Information Technology in Biomedicine, 2014.

#### Papers in international journals (full-paper reviewed)

1. C. Chatzaki, V. Skaramagkas, M. Tsiknakis, et al, The Smart-Insole Dataset: Gait analysis using wearable sensors with a focus on elderly and Parkinson's patients, Sensors, 2021 (accepted)

- V. Skaramagkas, M. Tsiknakis, et al, Review of eye tracking metrics involved in emotional and cognitive processes, IEEE Reviews in Biomedical Engineering, 17 Mar 2021, DOI: <u>10.1109/rbme.2021.3066072</u>
- H. Kondylakis, M Tsiknakis, R. Zwiggelaar, et al, Status and Recommendations of Technological and Data-Driven Innovations in Cancer Care: Focus Group Study, J Med Internet Res 2020;22(12):e22034, DOI: <u>10.2196/22034</u>
- 4. H. Kondylakis, M. Tsiknakis, S. Kiefer, et al., Patient Empowerment for Cancer Patients through a Novel ICT Infrastructure, Journal of Biomedical Informatics, Volume 101, January 2020, 103342, <u>https://doi.org/10.1016/j.jbi.2019.103342</u>
- C. Chatzaki, A. Goules, S. De Vita, A. Zabotti, C. Delporte, M.S. Soyfoo, F. Barone, B.A. Fisher, P. Brito-Zerón, E. Bartoloni, C.P. Mavragan, D.I. Fotiadis, A.G. Tzioufas, M. Tsiknakis, A Training Tool to support the management and diagnosis of Sjögren's syndrome, Clinical and Experimental Rheumatology 2020, S-174.
- 6. X. Atsalaki, L. Koumakis, G. Potamias, M. Tsiknakis, Chip-seq and gene expression data for the identification of functional sub-pathways: a proof of concept in lung cancer, **doi:** <u>https://doi.org/10.1101/2020.06.15.151712</u>
- H. Kondylakis, L. Koumakis, M. Tsiknakis, S. Kiefer, Personally managed health data: Barriers, approaches and a roadmap for the future, Journal of Biomedical Informatics, 20 May 2020, DOI: <u>10.1016/j.jbi.2020.103440</u>
- A. Pampouchidou, M. Pediaditis, E. Kazantzaki, S. Sfakianakis, I. A. Apostolaki, K. Argyraki, D. Manousos, F. Meriaudeau, K. Marias, F. Yang, M. Tsiknakis, M. Basta, A. N. Vgontzas, P. Simos. Automated facial video-based recognition of depression and anxiety symptom severity: cross-corpus validation, Machine Vision and Applications (2020) 31:30 <u>https://doi.org/10.1007/s00138-020-01080-7</u>
- G. Giannakakis, M. Tsiknakis, and P. Vorgia. Focal epileptic seizures anticipation based on patterns of heart rate variability parameters. Computer Methods and Programs in Biomedicine, 178:123–133, 2019. DOI: <u>https://doi.org/10.1016/j.cmpb.2019.05.032</u> (IF: 3.424).
- G. Z. Papadakis, A. H. Karantanas, M Tsiknakis, A., Tsatsakis, D. A Spandidos, & K. Marias, (2019). Deep learning opens new horizons in personalized medicine. *Biomedical Reports*, *10*(4), 215-217, <u>https://doi.org/10.3892/br.2019.1199</u>
- C. Spanakis, E. Mathioudakis, N. Kampanis, M. Tsiknakis, K.Marias, Machine-learning regression in evolutionary algorithms and image registration, IET Image Processing, Volume 13, Issue 5, April 2019, p. 843 – 849, DOI: <u>10.1049/iet-ipr.2018.5389</u>
- 12. G. Giannakakis, D. Grigoriadis, K. Giannakaki, O. Simantiraki, A. Roniotis, M. Tsiknakis, Review on psychological stress detection using biosignals, IEEE Transactions on Affective Computing (Early Access), 09 July 2019, **DOI:** <u>10.1109/TAFFC.2019.2927337</u>, (IF: 6.288).
- 13. L. Koumakis, C. Chatzaki, E Kazantzaki, E. Maniadi, M. Tsiknakis, Dementia Care Frameworks and Assistive Technologies for Their Implementation: A Review, IEEE Reviews in Biomedical Engineering, Vol. 12, ππ. 4-18, DOI: <u>10.1109/RBME.2019.2892614</u>
- C. Spanakis, E. Mathioudakis, N. Kampanis, M. Tsiknakis, K. Marias, Machine-learning regression in evolutionary algorithms and image registration, IET Image Processing, Volume 13, Issue 5, 18 April 2019, p. 843 – 849, DOI: <u>10.1049/iet-ipr.2018.5389</u>
- K. Kourou, V. C. Pezoulas, E. I. Georga, T. Exarchos, P. Tsanakas, M. Tsiknakis, Th. Varvarigou, S. De Vita, A. Tzioufas, D. I. Fotiadis, IEEE Reviews in Biomedical Engineering, Ωολ. 12, ππ. 303-318, 11 July 2018, DOI: <u>10.1109/RBME.2018.2855055</u>
- G. latraki, H. Kondylakis, L. Koumakis, M. Chatzimina, E. Kazantzaki, K. Marias, M. Tsiknakis, Personal Health Information Recommender: implementing a tool for the empowerment of cancer patients, <u>Ecancermedicalscience</u>. 2018; 12: 851, doi: <u>10.3332/ecancer.2018.851</u>

- A. Pampouchidou, P. Simos, K. Marias, F. Meriaudeau, F. Yang, M. Pediaditis, M. Tsiknakis, Automatic Assessment of Depression Based on Visual Cues: A Systematic Review, IEEE Transactions on Affective Computing, Issue: 99, Sept 2017, DOI: <u>10.1109/TAFFC.2017.2724035</u>
- A. Pampouchidou, M. Pediaditis, A. Maridaki, M. Awais, C. Vazakopoulou, S. Sfakianakis, *M. Tsiknakis*, P. Simos, K. Marias, F.Yang, F. Meriaudeau, Quantitative comparison of motion history image variants for video-based depression assessment, *EURASIP Journal on Image and Video Processing* **2017**:64 <u>https://doi.org/10.1186/s13640-017-0212-3</u>
- 19. P. Rotriguez, *M. Tsiknakis*, et al, *Mirror mirror on the wall... an unobtrusive intelligent multisensory mirror for well-being status self-assessment and visualization, IEEE* Transactions on Multimedia, Volume: 19, Issue: 7, pp. 1467 – 1481, 2017, DOI: <u>10.1109/TMM.2017.2666545</u>
- 20. C. Chatzaki, M. Pediaditis, G. Vavoulas, M. Tsiknakis, Human Daily Activity and Fall Recognition Using a Smartphone's Acceleration Sensor, Communications in Computer and Information Science, Springer. Communications in Computer and Information Science, volume 736, 20 July 2017.
- 21. H. Kondylakis, L. Koumakis, S. Hänold, I. Nwankwo, N. Forgó, K. Marias, *M. Tsiknakis*, N. Graf, Donor's Support Tool: Enabling Informed Secondary Use of Patient's Biomaterial and Personal Data, International Journal of Medical Informatics, January 2017, Volume 97, Pages 282–292, <u>https://doi.org/10.1016/j.ijmedinf.2016.10.019</u>
- 22. G. Giannakakis, M. Pediaditis, D. Manousos, E. Kazantzaki, F. Chiarugi, P.G. Simos, K. Marias, *M. Tsiknakis*, Stress and anxiety detection using facial cues from videos, Biomedical Signal Processing and Control Journal, Volume 31, January 2017, Pages 89–101, DOI: <u>10.1016/j.bspc.2016.06.020</u>
- 23. L. Koumakis, A. Kanterakis, E. Kartsaki, M Chatzimina, M. Zervakis, *M. Tsiknakis*, et al. MinePath: Mining for phenotype differential sub-paths in molecular pathways, PLoS Computational Biology, Nov. 2016, 12(11): e1005187. doi:<u>10.1371/journal.pcbi.1005187</u>
- 24. H. Kondylakis, B. Claerhout, M. Keyur, L. Koumakis, J. Van Leeuwen, K. Marias, D. Perez-Rey, K De Schepper, *M. Tsiknakis*, A. Bucur, The INTEGRATE project: Delivering solutions for efficient multi-centric clinical research and trials, Journal of Biomedical Informatics, Volume 62, August 2016, Pages 32–47, DOI: <u>10.1016/j.jbj.2016.05.006</u>
- 25. E. Spanakis, S. Santana, K. Marias, V. Sakkalis, M. Tsiknakis, A. Teixeira, J. Janssen, H. Jong, H. Segal, Ch. Tziraki, *Technology-based Innovations to Foster Personalized Healthy LifeStyles and Wellbeing: A targeted Review, Journal of Medical Internet Research, J Med Internet Res 2016;18(6):e128, DOI: <u>10.2196/jmir.4863</u>*
- 26. Y. Andreu, F. Chiarugi, S. Colantonio, G. Giannakakis, D. Giorgi, P. Henriquez, E. Kazantzaki, D. Manousos, K. Marias, B. J. Matuszewski, M. Antonietta Pascali, M. Pediaditis, G. Raccichini, *M. Tsiknakis, Wize Mirror a smart, multisensory cardio-metabolic risk monitoring system,* Computer Vision and Image Understanding, Special issue on Assistive Computer Vision and Robotics "Assistive Solutions for Mobility, Communication and HMI", Volume 148, July 2016, Pages 3–22, DOI: 10.1016/j.cviu.2016.03.018
- 27. L. Koumakis, G. Potamias, *M. Tsiknakis*, M. Zervakis, V. Moustakis, *Integrating Microarray Data and GRNs*, Microarray Data Analysis, Volume 1375 of the series Methods in Molecular Biology, pp 137-153, 02 July 2015.
- P. Sfakianaki, L. Koumakis, S. Sfakianakis, G. latraki, G. Zacharioudakis, N. Graf, K. Marias, M. Tsiknakis, Semantic Biomedical Resource Discovery: A Natural Language Processing Framework, BMC Medical Informatics and Decision Making, 2015 15:77, DOI: <u>10.1186/s12911-015-0200-4.</u>
- 29. G. Giannakakis, V. Sakkalis, M. Pediaditis, *M. Tsiknakis*, Methods for Seizure Detection and Prediction: an Overview, Neuromethods, vol. 91, 2015, pp. 131-157.

- E. Genitsaridi, H. Kondylakis, L. Koumakis, K. Marias, *M. Tsiknakis*, Evaluation of Personal Health Record Systems through the Lenses of EC Research Projects, 2015, Computers in Biology and Medicine, vol. 59, April 2015, pp. 175-185
- *31.* G. Vavoulas, M. Pediaditis, C. Chatzaki, E. Spanakis, *M. Tsiknakis*, The MobiFall Dataset: Fall Detection and Classification with a Smartphone International Journal of Monitoring and Surveillance Technologies Research, vol. 2, Issue1, January-March 2014, pp. 44-56.
- 32. *M. Tsiknakis*, V. J. Promponas, N. Graf, M. D. Wang, S. T. C. Wong, N. Bourbakis, and C. S. Pattichis, Guest Editorial, *Computational Solutions to Large-Scale Data Management and Analysis in Translational and Personalized Medicine*. IEEE J Biomed Health Inform, Vol. 18, No. 3, May 2014, pp 720-722.
- 33. G.S. Stamatakos, D.D. Dionysiou, A. Lunzer, R. Belleman, E. Kolokotroni, E. Georgiadi, M. Erdt, F. Dong, S. Rueping, S. Giatili, A. d Onofrio, S.G. Sfakianakis, K. Marias, C. Desmedt, *M. Tsiknakis*, N. Graf, The Technologically Integrated Oncosimulator: Combining Multiscale Cancer Modeling with Information Technology in the In Silico Oncology Context, IEEE J Biomed Health Inform, Vol. 18, No. 3, May 2014, pp 840-854.
- 34. H. Kondylakis, E. Kazantzaki, L. Koumakis, E. Genitsaridi, K. Marias, A. Gorini, M. Mazzocco, G. Pravettoni, D. Burke, G. McVie, *M. Tsiknakis, Development of Interactive Empowerment services in support of personalized medicine*. eCancer Medical Science Journal, 2014, 8:400 DOI: <u>10.3332/ecancer.2014.400</u>.
- *35.* A. Hristoskova, V. Sakkalis, G. Zacharioudakis, *M. Tsiknakis*, F. De Turck, Ontology-Driven Monitoring of Patient's Vital Signs Enabling Personalized Medical Detection and Alert. Sensors, 2014, 14(1), 1598-1628.
- *36.* A. Kouroubali, D.G. Katehakis, A. Berler, A., & *M. Tsiknakis*, Electronic Health Record: Luxury or Need? (in Greek). Health Review Scientific Magazine, 2013, 24(140), 5-9, Greece: Hellenic Health Services Management Association (HHSMA).
- 37. E. Genitsaridi, H. Kondylakis, L. Koumakis, K. Marias, *M. Tsiknakis*, Towards Intelligent Personal Health Record Systems: Review, Criteria and Extensions. Procedia Computer Science, 2013, 13, 327-334, (1877-0509).
- *38.* M. Pediaditis, M. Tsiknakis, N. Leitgeb, Vision-based human motion detection, analysis and recognition in epilepsy: A systematic review, Computer Methods and Programs in Biomedicine Journal, Vol. 108, Issue 3, December 2012, pp. 1133-1148.
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- K. Marias, D. Dionysiou, V. Sakkalis, N. Graf, R. M. Bohle, P. V. Coveney, S. Wan, A. Folarin, P. Büchler, M. Reyes, G. Clapworthy, E. Liu, J. Sabczynski, T. Bily, A. Roniotis, M. Tsiknakis, et al, Clinically driven design of multi-scale cancer models: the ContraCancrum project paradigm, Interface Focus, 2011, doi:10.1098/rsfs.2010.0037.
- 41. M. Brochhausen, G. Grigonyte, L. Martín, N. Graf, J. Haller, B. Smith, M. Tsiknakis, The ACGT Master Ontology and its applications Towards an ontology-driven cancer research and management system. J Biomed Inform, Feb. 2011, 44(1), pp. 8-25.
- 42. S. Sfakianakis, M. Blazantonakis, I. Dimou, M. Zervakis, M. Tsiknakis, G. Potamias, D. Kafetzopoulos, D. Lowe, Decision Support Based on Genomics: Integration of Data and Knowledge Driven Reasoning, International Journal of Biomedical Engineering and Technology 2010, Vol. 3, No.3/4 pp. 287 307.
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- 2. *M.* Tsiknakis, Achieving interoperability of systems and eHealth services, in the context of a RHIN, through HL7 V 2.xx and CDA, Panel on HL7 and Interoperability Issues in Healthcare Information Systems: Theory and Practice, 2nd ICICTH International Conference on Information & Communication Technologies in Health, Samos, Greece, July 2004.

- 3. *M. Tsiknakis*, HYGEIAnet: Integrated Health Telematics Network of Crete, Panel on Regional Healthcare Networks, International Conference on Medical Physics, Patras, September 1999.
- 4. *M. Tsiknakis, Employing Digital Library Technologies in Developing the Information Infrastructure of Regional Healthcare Networks,* European Conference on Digital Libraries 1998 (ECDL 98), Heraklion, Crete, Greece, 19 23 September, 1998.
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- 9. M. Tsiknakis, HYGEIAnet: Integrated Regional Health Telematics Networks of Crete, Architecture, technological challenges and achievements. In proceedings of INFOSYSTEM, Thessaloniki, Sept 2000.
- 10. M. Tsiknakis, Virtual Integrated Health Record Technological Challenges and achievements, 23rd Hellenic Medical Congress, Athens, May 1999.
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#### Invited Presentations and Colloquia

1. M. Tsiknakis, *Precision Medicine, big data, AI and beyond σε συμπαγείς όγκους*, 7ου Πανελλήνιου Συνεδρίου Ερευνητικής Εταιρείας Ουρογεννητικής Ογκολογίας, 20-22 September 2019, Thessaloniki.

- M. Tsiknakis, 25ο Ελληνικό Συνέδριο Κλινικής Ογκολογίας, Integrative data analysis for implementing precision medicine, Round table: Precision onology: from concept to realization, Chairs: D. Mavroudis, A. Koutras, K. Stamatopoulos, 18-20 April 2019, Athens.
- 3. M. Tsiknakis, *Big Data Analytics: Promise and Potential for eHealth and Biomedicine*, eHealth Forum 2016, 25-26 October 2016, Athens.
- 4. D. Katehakis, M. Tsiknakis, A. Kouroumbali, *EHR system certification, Round Table on Certification of EHR*, Chair: A. Berler, 380 National Medical Congress May 2012, Athens.
- 5. G. Potamias, M. Tsiknakis, D. Kafetzopoulos. *Clinico-Genomics and Biomedical Informatics: The ACGT Approach*, International Symposium on Biomedical Informatics in Europe, 26-27 June 2007, Barcelona, Spain (invited; Abstract & Presentation). <u>http://www.infobiomed.net/symposium/programme/topicF.htm</u>
- M. Tsiknakis, G. Potamias, D. Kafetzopoulos. Protein Profiling and Diagnosis with lab-onchip and proteomics technology: the Loccandia integrated clinic-proteomics environment, International Symposium on Biomedical Informatics in Europe, 26-27 June 2007, Barcelona, Spain (invited; Abstract & Presentation). http://www.infobiomed.net/symposium/programme/topicF.htm
- 7. M. Tsiknakis, *The ACGT project and its suite of semantic technologies in support of postgenomic clinical trials*, Healthgrid Conference 2009, Monday, 29th of June 2009, Berlin, Germany.
- 8. M. Tsiknakis, *Communities of Practice in the domain of Health and Social Care: Novel ethical, legal and security challenges*, FIDIS Doctoral Consortium scientific meeting on "Identity of the mind, body and spirit", 17-20 June 2008, Heraklion, Creece.
- 9. M. Tsiknakis, *The PICNIC-project regional health economy operationalized*, WHO Regions for Health Network Annual Conference "Health and Wealth, Regional Perspectives", 26-27 November 2007, Düsseldorf, Germany.
- 10. M. Tsiknakis, *Regional Innovation in the Health Sector: The HYGEIAnet Experience,* Capture Study visit and conference, Science and Technology Park of Crete, 29 March 2007, Heraklion.
- 11. M. Tsiknakis, From Proposal Writing to Project implementation: The ACGT (Advancing Clinico-Genomic Trials) project, ETI-INCUBATE seminar, 19-20 Oct 2006, Heraklion, Greece.
- 12. M. Tsiknakis, *Privacy, Security and Trust: Experiences with federated identity Management in the HYGEIAnet Regional Health Information Network (RHIN).* Experts' Workshop on Health-ID Management in Europe, 20-21 March 2006, Amsterdam, NL.
- 13. M. Tsiknakis, Open Grid Services for improving medical knowledge discovery on Cancer: The ACGT integrated project, Workshop on Clinical Decision Support Systems, Scientific and Technological Park of Epirus, Ioannina – 17 March 2006.
- 14. M. Tsiknakis, *Electronic Health Record: International developments and future trends*, Scientific Meeting on Medical Informatics, University Hospital 'Agia Olga', Athens, May 2002.
- 15. M. Tsiknakis, Strategy for the Development of Integrated Regional Health Telematics Networks: Architecture and Enabling Services of the Healthcare Information Infrastructure (HII), 2nd Scientific Meeting of Tzanio Hospital, in cooperation with the Johns Hopkin Hospital (Baltimore, USA), Piraeus, May 26, 2001.
- M. Tsiknakis, Ολοκληρωμένες Υπηρεσίες Τηλεματικής στην Υγεία, 24ο Πανελλήνιο Συνέδριο Χειρουργικής Παίδων (24th Panhellenic Congress of Paediatric Surgeons), 28 Σεπτέμβρη 2001, Καβούρι, Ελλάδα
- 17. M. Tsiknakis, Virtual Integrated Health Record Technological Challenges and achievements, 23rd Hellenic Medical Congress, Athens, May 1999.
- 18. M. Tsiknakis, *Technological challenges for the development of HYGEIAnet*, Integrated Telemedicine in the 21st Century: Opportunities for Citizens, Society and Industry, International Workshop, Strasbourg, France, November 1999.

- 19. M. Tsiknakis, The *HECTOR Platform: a future European reference architecture*, Health Emergency Telematics Conference, Paris, June 1999.
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- 22. M. Tsiknakis, *Intelligent and Secure Management and Communication of Medical Images*, Symposium on Medical Imaging, School of Medicine, University of Crete, Heraklion, Crete, Greece, May 1994.
- 23. M. Tsiknakis, *Intelligent Computers in Measurement and Instrumentation*, SERC Symposium on Instrumentation and Analytical Science, September 1989, UMIST, Manchester, UK

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- 2. M. Tsiknakis, Advancing Clinico-Genomic Clinical Trials on Cancer: Open Grid Services for improving Medical Knowledge Discovery, ERCIM News, Special issue on Service Oriented Computing, no 70, pp.30-31, July 2007.
- 3. S.C. Orphanoudakis, D. Kafetzopoulos, M. Tsiknakis, Biomedical Informatics in Support of Individualized Medicine, ERCIM News, Special Issue on Biomedical Informatics, no. 60, pp. 54-55, 2005.
- 4. M. Tsiknakis, D. Kafetzopoulos, ERCIM Working Group on Biomedical Informatics, ERCIM News, Special Issue on Biomedical Informatics, no. 60, pp. 54-55, 2005
- 5. T. Margaritis, K. Marias, M. Tsiknakis and D. Kafetzopoulos, Biomedical Imaging for Enhanced Genetic Data Analysis, ERCIM News, Special Issue on Biomedical Informatics, no. 60, pp. 54-55, 2005.
- 6. C. Chronaki, X. Zabulis, M. Tsiknakis, and S.C. Orphanoudakis, Web-Based Medical Services in the Regional Health Care Network of Crete, ERCIM News, no. 29, pp. 28-29, 1997.

#### Citations

The published research work of Dr Tsiknakis has received significant international recognition. A relevant search in Scholar (<u>https://scholar.google.gr/citations?user=Khj\_WYgAAAAJ&hl=el</u>) results in 3634 citations (h-index : 33) or his published work.

#### Other Miscellaneous Publications

Dr Tsiknakis, when at FORTH, has published extensively on issues related to medical and biomedical informatics and eHealth on numerous non-scientific journals as well as in the national and regional press.

Indicative such articles can be found at http://www.ics.forth.gr/bmi/ehealth in the news.html.